

4.2.4.2.2 Hazardous waste quantity. Assign the same factor value for hazardous waste quantity for the watershed as would be assigned in section 4.2.2.2.2 for the drinking water threat. Enter this value in Table 4-25.

4.2.4.2.3 Calculation of environmental threat-waste characteristics factor category value. For the hazardous substance selected for the watershed in section 4.2.4.2.1.5, use its ecosystem toxicity/mobility/persistence factor value and ecosystem bioaccumulation potential factor value as follows to assign a value to the waste characteristics factor category. First, multiply the ecosystem toxicity/mobility/persistence factor value and the hazardous waste quantity factor value for the watershed, subject to a maximum product of 1×10^6 . Then multiply this product by the ecosystem bioaccumulation potential factor value for this hazardous substance, subject to a maximum product of 1×10^{12} . Based on this product, assign a value from Table 2-7 (section 2.4.3.1) to the environmental threat-waste characteristics category for the watershed. Enter the value in Table 4-25.

4.2.4.3 Environmental threat-targets. Evaluate the environmental threat-targets factor category for a watershed using one factor: sensitive environments.

4.2.4.3.1 Sensitive environments. Evaluate sensitive environments for the watershed based on three factors: Level I concentrations, Level II concentrations, and potential contamination. Determine which applies to each sensitive environment as specified in section 4.1.4.3.1, except: use only those samples from the surface water in-water segment and only those hazardous substances in such samples that meet the conditions in sections 4.2.1.3 and 4.2.1.4.

4.2.4.3.1.1 Level I concentrations. Assign a value to this factor as specified in section 4.1.4.3.1.1. Enter this value in Table 4-25.

4.2.4.3.1.2 Level II concentrations. Assign a value to this factor as specified in section 4.1.4.3.1.2. Enter this value in Table 4-25.

4.2.4.3.1.3 Potential contamination. Assign a value to this factor as specified in section

4.1.4.3.1.3 with the following modification. Multiply the appropriate dilution weight from Table 4-13 for the sensitive environments in each type of surface water body by the adjustment value selected from Table 4-27, as specified in section 4.2.2.3.1. Use the resulting product, not the value from Table 4-13, as the dilution weight for the sensitive environments in that type of surface water body. Do not round this product to the nearest integer. Enter the value assigned in Table 4-25.

4.2.4.3.1.4 Calculation of environmental threat-targets factor category value. Sum the values for Level I concentrations, Level II concentrations, and potential contamination for the watershed. Do not round this sum to the nearest integer. Assign this sum as the environmental threat targets factor category value for the watershed. Enter this value in Table 4-25.

4.2.4.4 Calculation of environmental threat score for a watershed. Multiply the environmental threat factor category values for likelihood of release, waste characteristics, and targets for the watershed, and round the product to the nearest integer. Then divide by 82,500. Assign the resulting value, subject to a maximum of 60, as the environmental threat score for the watershed. Enter this score in Table 4-25.

4.2.5 Calculation of ground water to surface water migration component score for a watershed. Sum the scores for the three threats for the watershed (that is, drinking water, human food chain, and environmental threats). Assign the resulting score, subject to a maximum value of 100, as the ground water to surface water migration component score for the watershed. Enter this score in Table 4-25.

4.2.6 Calculation of ground water to surface water migration component score. Select the highest ground water to surface water migration component score from the watersheds evaluated. Assign this score as the ground water to surface water migration component score for the site, subject to a

maximum score of 100. Enter this score in Table 4-25.

4.3 Calculation of surface water migration pathway score. Determine the surface water migration pathway score as follows:

- If only one of the two surface water migration components (overland/flood or ground water to surface water) is scored, assign the score of that component as the surface water migration pathway score.
- If both components are scored, select the higher of the two component scores from sections 4.1.6 and 4.2.6. Assign that score as the surface water migration pathway score.

5.0 Soil Exposure Pathway

Evaluate the soil exposure pathway based on two threats: Resident population threat and nearby population threat. Evaluate both threats based on three factor categories: Likelihood of exposure, waste characteristics, and targets. Figure 5-1 indicates the factors included within each factor category for each type of threat.

Determine the soil exposure pathway score (S_e) in terms of the factor category values as follows:

$$S_e = \frac{\sum_{i=1}^2 (LE_i)(WC_i)(T_i)}{SF}$$

where:

LE_i = Likelihood of exposure factor category value for threat i (that is, resident population threat or nearby population threat).

WC_i = Waste characteristics factor category value for threat i .

T_i = Targets factor category value for threat i .

SF = Scaling factor.

Table 5-1 outlines the specific calculation procedure.

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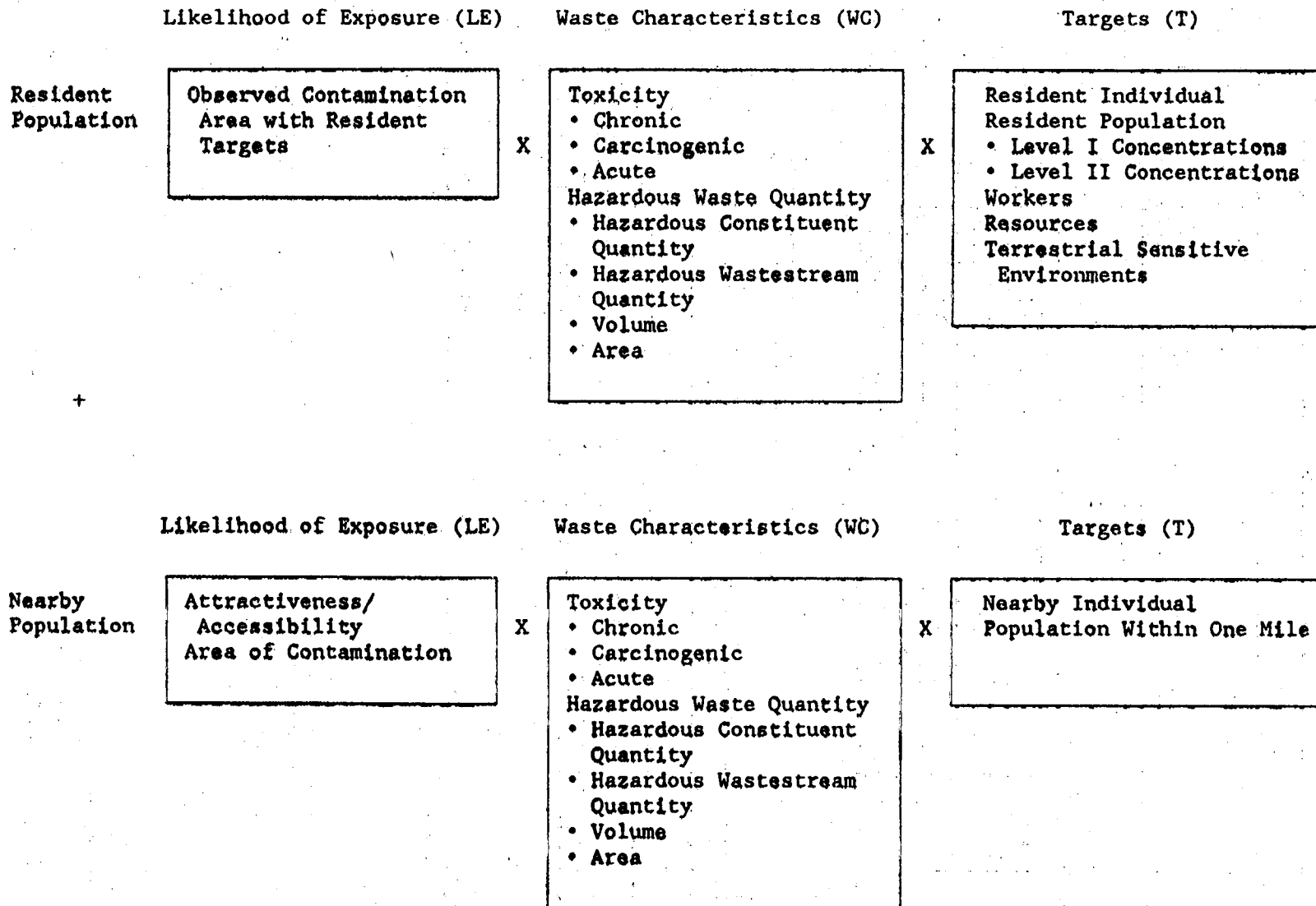


Figure 5-1
OVERVIEW OF SOIL EXPOSURE PATHWAY

TABLE 5-1.—SOIL EXPOSURE PATHWAY SCORESHEET

Factor categories and factors	Maximum value	Value assigned
Resident Population Threat		
Likelihood of Exposure		
1. Likelihood of Exposure	550	_____
Waste Characteristics		
2. Toxicity	(a)	_____
3. Hazardous Waste Quantity	(a)	_____
4. Waste Characteristics	100	_____
Targets		
5. Resident Individual	50	_____
6. Resident Population:		
6a. Level I Concentrations	(b)	_____
6b. Level II Concentrations	(b)	_____
6c. Resident Population (lines 6a + 6b)	(b)	_____
7. Workers	15	_____
8. Resources	5	_____
9. Terrestrial Sensitive Environments	(c)	_____
10. Targets (lines 5 + 6c + 7 + 8 + 9)	(b)	_____
Resident Population Threat Score		
11. Resident Population Threat (lines 1 × 4 × 10)	(b)	_____
Nearby Population Threat		
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	_____
13. Area of Contamination	100	_____
14. Likelihood of Exposure	500	_____
Waste Characteristics		
15. Toxicity	(a)	_____
16. Hazardous Waste Quantity	(a)	_____
17. Waste Characteristics	100	_____
Targets		
18. Nearby Individual	1	_____
19. Population Within 1 Mile	(b)	_____
20. Targets (lines 18 + 19)	(b)	_____
Nearby Population Threat Score		
21. Nearby Population Threat (lines 14 × 17 × 20)	(b)	_____
Soil Exposure Pathway Score		
22. Soil Exposure Pathway Score ^a (S _p), (lines [11 + 21] / 82,500, subject to a maximum of 100)	100	_____

^a Maximum value applies to waste characteristics category.

^b Maximum value not applicable.

^c No specific maximum value applies to factor. However, pathway score based solely on terrestrial sensitive environments is limited to maximum of 60

^d Do not round to nearest integer.

5.0.1 *General considerations.* Evaluate the soil exposure pathway based on areas of observed contamination:

- Consider observed contamination to be present at sampling locations where analytic evidence indicates that:

- A hazardous substance attributable to the site is present at a concentration significantly above background levels for the site (see Table 2-3 in section 2.3 for the criteria for determining analytical significance), and
- This hazardous substance, if not present at the surface, is covered by 2 feet or less of cover material (for example, soil).

- Establish areas of observed contamination based on sampling locations at which there is observed contamination as follows:

- For all sources except contaminated soil, if observed contamination from the site is present at any sampling location within the source, consider that entire source to be an area of observed contamination.
- For contaminated soil, consider both the sampling location(s) with observed contamination from the site and the area lying between such locations to be an area of observed contamination,

unless available information indicates otherwise.

- If an area of observed contamination (or portion of such an area) is covered by a permanent, or otherwise maintained, essentially impenetrable material (for example, asphalt) that is not more than 2 feet thick, exclude that area (or portion of the area) in evaluating the soil exposure pathway.

- For an area of observed contamination, consider only those hazardous substances that meet the criteria for observed contamination for that area to be associated with that area in evaluating the soil exposure pathway (see section 2.2.2).

If there is observed contamination, assign scores for the resident population threat and the nearby population threat, as specified in sections 5.1 and 5.2. If there is no observed contamination, assign the soil exposure pathway a score of 0.

5.1 *Resident Population Threat.* Evaluate the resident population threat only if there is an area of observed contamination in one or more of the following locations:

- Within the property boundary of a residence, school, or day care center and within 200 feet of the respective residence, school, or day care center, or
- Within a workplace property boundary and within 200 feet of a workplace area, or

- Within the boundaries of a resource specified in section 5.1.3.4, or
- Within the boundaries of a terrestrial sensitive environment specified in section 5.1.3.5.

If not, assign the resident population threat a value of 0, enter this value in Table 5-1, and proceed to the nearby population threat (section 5.2).

5.1.1 *Likelihood of exposure.* Assign a value of 550 to the likelihood of exposure factor category for the resident population threat if there is an area of observed contamination in one or more locations listed in section 5.1. Enter this value in Table 5-1.

5.1.2 *Waste characteristics.* Evaluate waste characteristics based on two factors: toxicity and hazardous waste quantity. Evaluate only those hazardous substances that meet the criteria for observed contamination at the site (see section 5.0.1).

5.1.2.1 *Toxicity.* Assign a toxicity factor value to each hazardous substance as specified in section 2.4.1.1. Use the hazardous substance with the highest toxicity factor value to assign the value to the toxicity factor for the resident population threat. Enter this value in Table 5-1.

5.1.2.2 *Hazardous waste quantity.* Assign hazardous waste quantity factor value as specified in section 2.4.2. In estimating the hazardous waste quantity, use Table 5-2 and:

• Consider only the first 2 feet of depth of an area of observed contamination, except as specified for the volume measure.

• Use the volume measure (see section 2.4.2.1.3) only for those types of areas of observed contamination listed in Tier C of Table 5-2. In evaluating the volume measure for these listed areas of observed contamination, use the full volume, not just the volume within the top 2 feet.

• Use the area measure (see section 2.4.2.1.4), not the volume measure, for all other types of areas of observed contamination, even if their volume is known.

Enter the value assigned in Table 5-1.

TABLE 5-2.—HAZARDOUS WASTE QUANTITY EVALUATION EQUATIONS FOR SOIL EXPOSURE PATHWAY

Tier	Measure	Units	Equation for assigning value *
A	Hazardous Constituent Quantity (C)	lb	C
B ^a	Hazardous Wastestream Quantity (W)	lb	W/5,000
C ^b	Volume (V)	yd ³	V/2.5
	Surface Impoundment ^c	gallon	V/500
	Drums ^d	yd ³	V/2.5
	Tanks and Containers Other Than Drums		
D ^e	Area (A)	ft ²	A/34,000
	Landfill	ft ²	A/13
	Surface Impoundment	ft ²	A/13
	Surface Impoundment (Buried/backfilled)	ft ²	A/13
	Land treatment	ft ²	A/270
	Pile ^f	ft ²	A/34
	Contaminated Soil	ft ²	A/34,000

* Do not round nearest integer.

^a Convert volume to mass when necessary: 1 ton=2,000 pounds=1 cubic yard=4 drums=200 gallons.

^b Use volume measure only for surface impoundments containing hazardous substances present as liquids. Use area measures in Tier D for dry surface impoundments and for buried/backfilled surface impoundments.

^c If actual volume of drums is unavailable, assume 1 drum=50 gallons.

^d Use land surface area under pile, not surface area of pile.

5.1.2.3 Calculation of waste characteristics factor category value.

Multiply the toxicity and hazardous waste quantity factor values, subject to a maximum product of 1×10^6 . Based on this product, assign a value from Table 2-7 (section 2.4.3.1) to the waste characteristics factor category. Enter this value in Table 5-1.

5.1.3 Targets. Evaluate the targets factor category for the resident population threat based on five factors: resident individual, resident population, workers, resources, and terrestrial sensitive environments.

In evaluating the targets factor category for the resident population threat, count only the following as targets:

• Resident individual—a person living or attending school or day care on a property with an area of observed contamination and whose residence, school, or day care center, respectively, is on or within 200 feet of the area of observed contamination.

• Worker—a person working on a property with an area of observed contamination and whose workplace area is on or within 200 feet of the area of observed contamination.

• Resources located on an area of observed contamination, as specified in section 5.1.

• Terrestrial sensitive environments located on an area of observed contamination, as specified in section 5.1.

5.1.3.1 Resident individual. Evaluate this factor based on whether there is a resident individual, as specified in section 5.1.3, who is subject to Level I or Level II concentrations.

First, determine those areas of observed contamination subject to Level I concentrations and those subject to Level II concentrations as specified in sections 2.5.1 and 2.5.2. Use the health-based benchmarks from Table 5-3 in determining the level of contamination. Then assign a value to the resident individual factor as follows:

• Assign a value of 50 if there is at least one resident individual for one or more areas subject to Level I concentrations.

• Assign a value of 45 if there is no such resident individuals, but there is at least one resident individual for one or more areas subject to Level II concentrations.

• Assign a value of 0 if there is no resident individual.

Enter the value assigned in Table 5-1.

5.1.3.2 Resident population. Evaluate resident population based on two factors: Level I concentrations and Level II concentrations. Determine which factor applies as specified in sections 2.5.1 and 2.5.2, using the health-based benchmarks from Table 5-3. Evaluate populations subject to Level I concentrations as specified in section 5.1.3.2.1 and populations subject to Level II concentrations as specified in section 5.1.3.2.2.

TABLE 5-3.—HEALTH-BASED BENCHMARKS FOR HAZARDOUS SUBSTANCES IN SOILS

• Screening concentration for cancer corresponding to that concentration that corresponds to the 10^{-6} individual cancer risk for oral exposures.

• Screening concentration for noncancer toxicological responses corresponding to the Reference Dose (RfD) for oral exposures.

Count only those persons meeting the criteria for resident individual as specified in

section 5.1.3. In estimating the number of people living on property with an area of observed contamination, when the estimate is based on the number of residences, multiply each residence by the average number of persons per residence for the county in which the residence is located.

5.1.3.2.1 Level I concentrations. Sum the number of resident individuals subject to Level I concentrations and multiply this sum by 10. Assign the resulting product as the value for this factor. Enter this value in Table 5-1.

5.1.3.2.2 Level II concentrations. Sum the number of resident individuals subject to Level II concentrations. Do not include those people already counted under the Level I concentrations factor. Assign this sum as the value for this factor. Enter this value in Table 5-1.

5.1.3.2.3 Calculation of resident population factor value. Sum the factor values for Level I concentrations and Level II concentrations. Assign this sum as the resident population factor value. Enter this value in Table 5-1.

5.1.3.3 Workers. Evaluate this factor based on the number of workers that meet the section 5.1.3 criteria. Assign a value for these workers using Table 5-4. Enter this value in Table 5-1.

TABLE 5-4.—FACTOR VALUES FOR WORKERS

Number of workers	Assigned value
0.....	0
1 to 100.....	5
101 to 1,000.....	10
Greater than 1,000.....	15

5.1.3.4 Resources. Evaluate the resources factor as follows:

• Assign a value of 5 to the resources factor if one or more of the following is present on an area of observed contamination at the site:

- Commercial agriculture.
- Commercial silviculture.
- Commercial livestock production or commercial livestock grazing.

• Assign a value of 0 if none of the above are present.

Enter the value assigned in Table 5-1.

5.1.3.5 Terrestrial sensitive environments. Assign value(s) from Table 5-5 to each terrestrial sensitive environment that meets the eligibility criteria of section 5.1.3.

Calculate a value (ES) for terrestrial sensitive environments as follows:

$$ES = \sum_{i=1}^n S_i$$

where:

S_i = Value(s) assigned from Table 5-5 to terrestrial sensitive environment i.

n=Number of terrestrial sensitive environments meeting section 5.1.3 criteria.

Because the pathway score based solely on terrestrial sensitive environments is limited to a maximum of 60, determine the value for the terrestrial sensitive environments factor as follows:

TABLE 5-5.—TERRESTRIAL SENSITIVE ENVIRONMENTS RATING VALUES

Terrestrial sensitive environments	Assigned value
Terrestrial critical habitat* for Federal designated endangered or threatened species	100
National Park	
Designated Federal Wilderness Area	
National Monument	
Terrestrial habitat known to be used by Federal designated or proposed threatened or endangered species	75
National Preserve (terrestrial)	
National or State Terrestrial Wildlife Refuge	
Federal land designated for protection of natural ecosystems	
Administratively proposed Federal Wilderness Area	
Terrestrial areas utilized for breeding by large or dense aggregations of animals ^b	
Terrestrial habitat known to be used by State designated endangered or threatened species	50
Terrestrial habitat known to be used by species under review as to its Federal designated endangered or threatened status	
State lands designated for wildlife or game management	25
State designated Natural Areas	
Particular areas, relatively small in size, important to maintenance of unique biotic communities	

* Critical habitat as defined in 50 CFR 424.02.
^b Limit to vertebrate species.

• Multiply the values assigned to the resident population threat for likelihood of exposure (LE), waste characteristics (WC), and ES. Divide the product by 82,500.

—If the result is 60 or less, assign the value ES as the terrestrial sensitive environments factor value.

—If the result exceeds 60, calculate a value EC as follows:

$$EC = \frac{(60)(82,500)}{(LE)(WC)}$$

Assign the value EC as the terrestrial sensitive environments factor value. Do not round this value to the nearest integer.

Enter the value assigned for the terrestrial sensitive environments factor in Table 5-1.

5.1.3.6 *Calculation of resident population targets factor category value.* Sum the values for the resident individual, resident population, workers, resources, and terrestrial sensitive environments factors. Do not round to the nearest integer. Assign this sum as the targets factor category value for

the resident population threat. Enter this value in Table 5-1.

5.1.4 *Calculation of resident population threat score.* Multiply the values for likelihood of exposure, waste characteristics, and targets for the resident population threat, and round the product to the nearest integer. Assign this product as the resident population threat score. Enter this score in Table 5-1.

5.2 *Nearby population threat.* Include in the nearby population only those individuals who live or attend school within a 1-mile travel distance of an area of observed contamination at the site and who do not meet the criteria for resident individual as specified in section 5.1.3.

Do not consider areas of observed contamination that have an attractiveness/accessibility factor value of 0 (see section 5.2.1.1) in evaluating the nearby population threat.

5.2.1 *Likelihood of exposure.* Evaluate two factors for the likelihood of exposure factor category for the nearby population threat: attractiveness/accessibility and area of contamination.

5.2.1.1 *Attractiveness/accessibility.*

Assign a value for attractiveness/accessibility from Table 5-6 to each area of observed contamination, excluding any land used for residences. Select the highest value assigned to the areas evaluated and use it as the value for the attractiveness/accessibility factor. Enter this value in Table 5-1.

5.2.1.2 *Area of contamination.* Evaluate area of contamination based on the total area of the areas of observed contamination at the site. Count only the area(s) that meet the criteria in section 5.0.1 and that receive an attractiveness/accessibility value greater than 0. Assign a value to this factor from Table 5-7. Enter this value in Table 5-1.

TABLE 5-6.—ATTRACTIVENESS/ACCESSIBILITY VALUES

Area of observed contamination	Assigned value
Designated recreational area	100
Regularly used for public recreation (for example, fishing, hiking, softball)	75
Accessible and unique recreational area (for example, vacant lots in urban area)	75
Moderately accessible (may have some access improvements—for example, gravel road), with some public recreation use	50
Slightly accessible (for example, extremely rural area with no road improvement), with some public recreation use	25
Accessible, with no public recreation use	10
Surrounded by maintained fence or combination of maintained fence and natural barriers	5
Physically inaccessible to public, with no evidence of public recreation use	0

TABLE 5-7.—AREA OF CONTAMINATION FACTOR VALUES

Total area of the areas of observed contamination (square feet)	Assigned value
Less than or equal to 5,000	5
Greater than 5,000 to 125,000	20
Greater than 125,000 to 250,000	40
Greater than 250,000 to 375,000	60
Greater than 375,000 to 500,000	80
Greater than 500,000	100

5.2.1.3 *Likelihood of exposure factor category value.* Assign a value from Table 5-8 to the likelihood of exposure factor category, based on the values assigned to the attractiveness/accessibility and area of contamination factors. Enter this value in Table 5-1.

TABLE 5-8.—NEARBY POPULATION LIKELIHOOD OF EXPOSURE FACTOR VALUES

Area of contamination factor value	Attractiveness/accessibility factor value					
	100	75	50	25	10	5
100	500	500	375	250	125	50
80	500	375	250	125	50	25
60	375	250	125	50	25	5
40	250	125	50	25	5	5
20	125	50	25	5	5	5
5	50	25	5	5	5	5

5.2.2 *Waste characteristics.* Evaluate waste characteristics based on two factors: toxicity and hazardous waste quantity. Evaluate only those hazardous substances that meet the criteria for observed contamination (see section 5.0.1) at areas that can be assigned an attractiveness/accessibility factor value greater than 0.

5.2.2.1 *Toxicity.* Assign a toxicity factor value as specified in section 2.4.1.1 to each hazardous substance meeting the criteria in section 5.2.2. Use the hazardous substance with the highest toxicity factor value to assign the value to the toxicity factor for the nearby population threat. Enter this value in Table 5-1.

5.2.2.2 *Hazardous waste quantity.* Assign a value to the hazardous waste quantity factor as specified in section 5.1.2.2, except: consider only those areas of observed contamination that can be assigned an attractiveness/accessibility factor value greater than 0. Enter the value assigned in Table 5-1.

5.2.2.3 *Calculation of waste characteristics factor category value.* Multiply the toxicity and hazardous waste quantity factor values, subject to a maximum product of 1×10^6 . Based on this product, assign a value from Table 2-7 (section 2.4.3.1) to the waste characteristics factor category. Enter this value in Table 5-1.

5.2.3 *Targets.* Evaluate the targets factor category for the nearby population threat based on two factors: nearby individual and population within a 1-mile travel distance from the site.

5.2.3.1 *Nearby individual.* If one or more persons meet the section 5.1.3 criteria for a

resident individual, assign this factor a value of 0. Enter this value in Table 5-1.

If no person meets the criteria for a resident individual, determine the shortest travel distance from the site to any residence or school. In determining the travel distance, measure the shortest overland distance an individual would travel from a residence or school to the nearest area of observed contamination for the site with an attractiveness/accessibility factor value greater than 0. If there are no natural barriers to travel, measure the travel distance as the shortest straight-line distance from the residence or school to the area of observed contamination. If natural barriers exist (for example, a river), measure the travel distance as the shortest straight-line distance from the residence or school to the nearest crossing point and from there as the shortest straight-line distance to the area of observed contamination. Based on the shortest travel distance, assign a value from Table 5-9 to the nearest individual factor. Enter this value in Table 5-1.

TABLE 5-9.—NEARBY INDIVIDUAL FACTOR VALUES

Travel distance for nearby individual (miles)	Assigned value
Greater than 0 to ¼.....	1*
Greater than ¼ to 1.....	0

* Assign a value of 0 if one or more persons meet the section 5.1.3 criteria for resident individual.

5.2.3.2 Population within 1 mile.

Determine the population within each travel distance category of Table 5-10. Count residents and students who attend school within this travel distance. Do not include those people already counted in the resident population threat. Determine travel distances as specified in section 5.2.3.1.

In estimating residential population, when the estimate is based on the number of residences, multiply each residence by the average number of persons per residence for the county in which the residence is located.

Based on the number of people included within a travel distance category, assign a distance-weighted population value for that travel distance from Table 5-10.

Calculate the value for the population within 1 mile factor (PN) as follows:

$$PN = \frac{1}{10} \sum_{i=1}^3 W_i$$

where:

W_i = Distance-weighted population value from Table 5-10 for travel distance category i .

If PN is less than 1, do not round it to the nearest integer; if PN is 1 or more, round to the nearest integer. Enter this value in Table 5-1.

5.2.3.3 Calculation of nearby population targets factor category value. Sum the values for the nearby individual factor and the population within 1 mile factor. Do not round this sum to the nearest integer. Assign this sum as the targets factor category value for the nearby population threat. Enter this value in Table 5-1.

TABLE 5-10.—DISTANCE-WEIGHTED POPULATION VALUES FOR NEARBY POPULATION THREAT *

Travel distance category (miles)	Number of people within the travel distance category											
	0	1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000
Greater than 0 to ¼	0	0.1	0.4	1.0	4	13	41	130	408	1,303	4,081	13,034
Greater than ¼ to ½	0	0.05	0.2	0.7	2	7	20	65	204	652	2,041	6,517
Greater than ½ to 1	0	0.02	0.1	0.3	1	3	10	33	102	326	1,020	3,258

* Round the number of people present within a travel distance category to nearest integer. Do not round the assigned distance-weighted population value to nearest integer.

5.2.4 Calculation of nearby population threat score. Multiply the values for likelihood of exposure, waste characteristics, and targets for the nearby population threat, and round the product to the nearest integer. Assign this product as the nearby population threat score. Enter this score in Table 5-1.

5.3 Calculation of soil exposure pathway score. Sum the resident population threat score and the nearby population threat score, and divide the sum by 82,500. Assign the resulting value, subject to a maximum of 100, as the soil exposure pathway score (S_s). Enter this score in Table 5-1.

6.0 Air Migration Pathway

Evaluate the air migration pathway based on three factor categories: likelihood of release, waste characteristics, and targets. Figure 6-1 indicates the factors included within each factor category.

Determine the air migration pathway score (S_a) in terms of the factor category values as follows:

$$S_a = \frac{(LR)(WC)(T)}{SF}$$

where:

LR = Likelihood of release factor category value.

WC = Waste characteristics factor category value.

T = Targets factor category value.

SF = Scaling factor.

Table 6-1 outlines the specific calculation procedure.

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